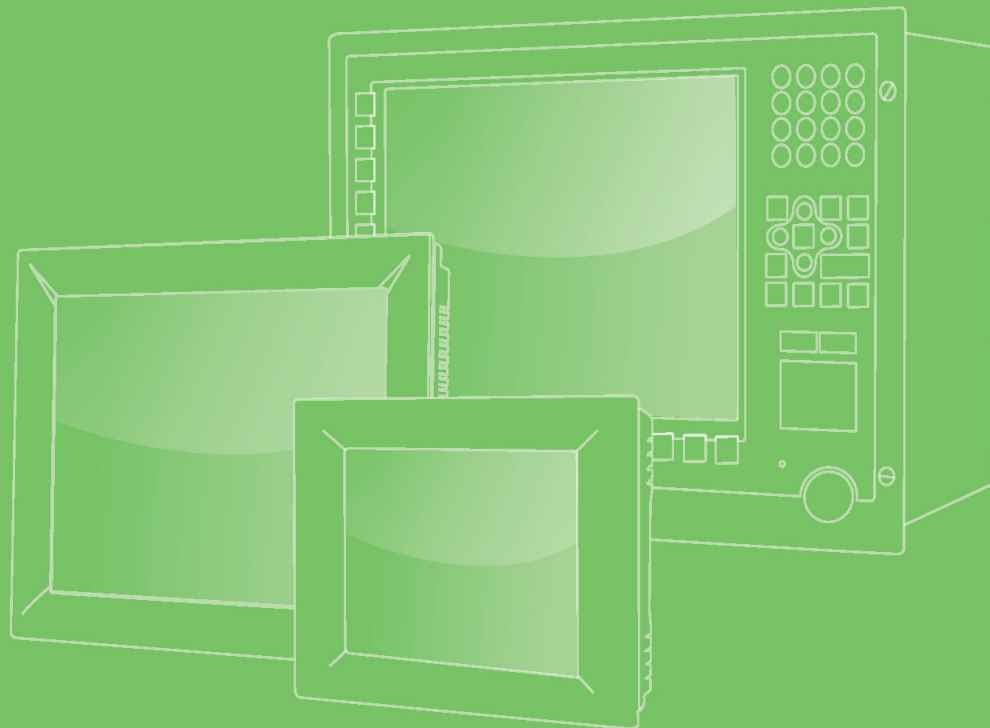


User Manual



PWS-8033M

3.7" VGA TFT LCD XScale Ultra
Rugged Mobile Computer

ADVANTECH

eAutomation

Copyright

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Product Warranty (2 years)

Advantech warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for two years from the date of purchase.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which have been subject to misuse, abuse, accident or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. Please consult your dealer for more details.

If you think you have a defective product, follow these steps:

1. Collect all the information about the problem encountered. (For example, CPU speed, Advantech products used, other hardware and software used, etc.) Note anything abnormal and list any onscreen messages you get when the problem occurs.
2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
3. If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.
4. Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Declaration of Conformity

CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from Advantech. Please contact your local supplier for ordering information.

FCC Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Technical Support and Assistance

1. Visit the Advantech web site at www.advantech.com/support where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Warnings, Cautions and Notes

Follow these simple precautions to protect yourself from harm and the products from damage.

- To avoid electrical shock, always disconnect the power from your PC chassis before you work on it. Don't touch any components on the CPU card or other cards while the PC is on.

Disconnect power before making any configuration changes. The sudden rush of power as you connect a jumper or install a card may damage sensitive electronic components.

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following situations arises, get the equipment checked by service personnel:
 15. The power cord or plug is damaged.
 16. Liquid has penetrated into the equipment.
 17. The equipment has been exposed to moisture.
 18. The equipment does not work well, or you cannot get it to work according to the user's manual.
 19. The equipment has been dropped and damaged.
 20. The equipment has obvious signs of breakage.
21. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.**
22. **CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.**
23. The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70 dB (A).

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

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Chapter 1

General Information

1.1 Introduction

The PWS-8033M is an ultra rugged computer designed to military standards. The design incorporates the powerful Intel PXA270 624MHz CPU with Microsoft Windows CE 5.0/Mobile 6.1 operating system. The PWS-8033M provides the highest performance and reliability whilst minimizing the Total Cost of Ownership (TCO). The PWS-8033M incorporates a transfective LCD with touch-screen, keypad, Wifi, and Bluetooth communication capability. Currently available options include HSDPA (3.5G), and GPS. To minimize the Total Cost of Ownership the PWS-8033M is sealed to meet IP67 standards and complies with IEC 68-2-32 5 foot drop to concrete.

1.1.1 Features & Specifications

The PWS-8033M is a smart configurable handheld terminal which has been designed to meet the requirements of a wide range of applications including:

- Military & Law Enforcement
- Industrial & Manufacturing
- Emergency services and construction

PWS-8033M been developed to comply with MIL-STD-461E, MIL-STD-810F and IP67 standards, the main specifications are as detailed below.

PWS-8033M Military PDA Specifications

Items	Description
OS	Windows Mobile 6.1 / Windows CE 5.0
CPU	Intel PXA270 624MHz
Memory	256MB SDRAM on board 256MB/512MB Flash ROM on board
Display	3.7" transfective TFT LCD, VGA resolution (640 X 480)/QVGA resolution (320 X 240)
Touchscreen	4-wire Resistive touch screen
Audio System	AC-97, Internal microphone and one speaker (stereo supported via ear-phone jack)
Application Buttons	One power on/suspend button One software reset switch Navigation Key+ Function Key (4 function keys in front) One HW reset key located right side door One Button for backlight on/off (using power on/ suspend button)
Communication	802.11b/g WLAN module built-in with integral antenna Bluetooth class 2, v1.2 built-in with integral antenna GPS & GALILEO receiver module with antenna built-in GSM/GPRS/WCDMA/HSDPA(3.5G) internal module (for data transmission only)
Status Indicator	Power LED (two color LED x1) (at right side) LED on the upper side for lighting usage One LED for GPRS (wireless connection) (at left side)

I/O Ports	Two USB type A connectors, USB1.1 Host (** Two USB Type A at Left Side)
	One USB mini type B connector, USB1.1 Slave (at Right Side Door)
	One RS-232(full) One RS-232/422/485 (OPTION)
	One RJ-45 for 10/100M ethernet (USB type)
	One CF slot
	One stereo headphone jack
	One microphone jack
	One DC-In connector (At the right side)
	One MicroSD Slot
Main Battery	Rechargeable Li-ion smart battery, 7.4V, 1880mAh, 2S1P, 59X38X25mm
Power Adapter	Universal AC 90V ~ 265V, 47~63Hz input, 12V, 3.5A output.
Physical	155 x 96 x 42mm , 650g
Environment	Operating Temperature: -20 to +60C
	Storage Temperature -40 to +70C
	Charging Temperature 0 to +50C
	Operating Humidity 5% ~ 95% none condensing
Rugged Specifications	IP67 5 ft drop to concrete
	MIL-STD-810F
	MIL-STD-461E
Certification	CE, FCC
Accessories	1. Case: standard nylon (waterproof) case with belt loop;
	2. Mount: Vehicle mount (using RAM mount)
	3. elastic hand strap: prevent accidental drop
	4. Stylus with tether kit
	5. Power: DC-Adapter & power cord 12V Vehicle charger with 12V cable (option)
	6. Cradle: 1 x RS-232, 2 x USB (1x Type A; 1xTypeB), 1 x DC-in
	7. External Military Connector Box: converting 2 XRS-232 and 2 XUSB to one military connector
	8. 4-IN-1 battery charger

1.1.2 Package Contents

The standard PWS-8033M includes the following items:

- PWS-8033M PDA unit
- Power cord & adapter
- Battery
- Stylus & string

1.1.3 Optional Accessories

In addition the following optional accessories may be included:

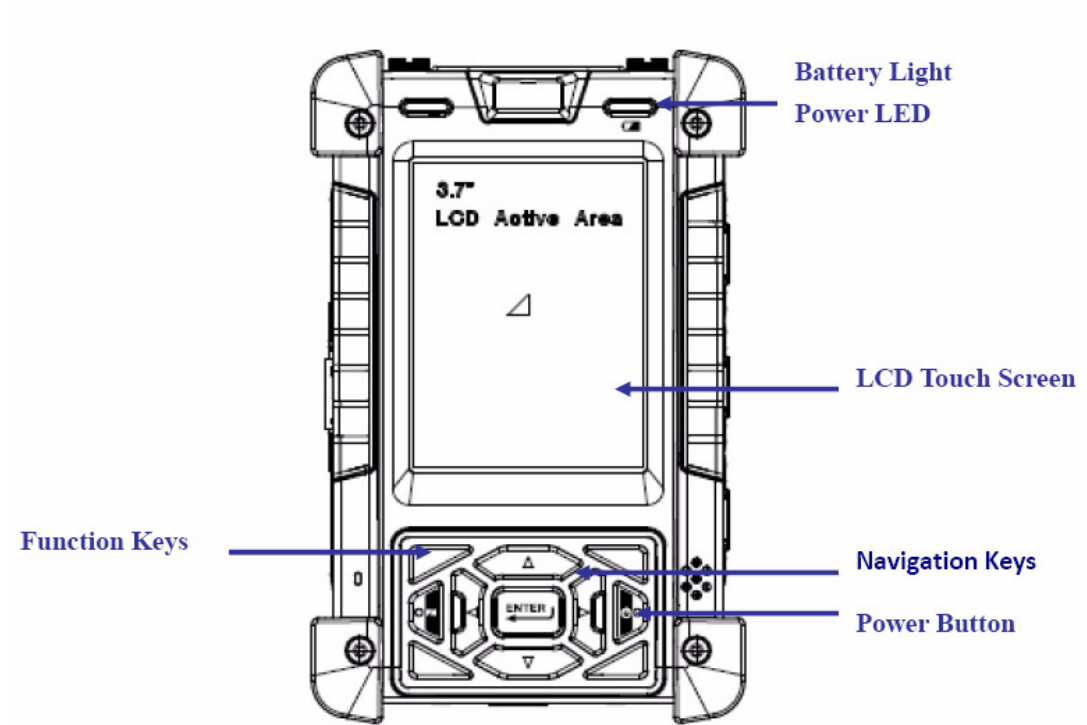
- Sleeve with hand strap & shoulder strap
- Cradle
- Vehicle Mount
- 4 IN 1 Battery Charger

Please carefully check the delivery documents to ensure that all items are present. In the unlikely event of a discrepancy please contact your supplier.

1.2 Familiarizing Yourself with the PWS-8033M

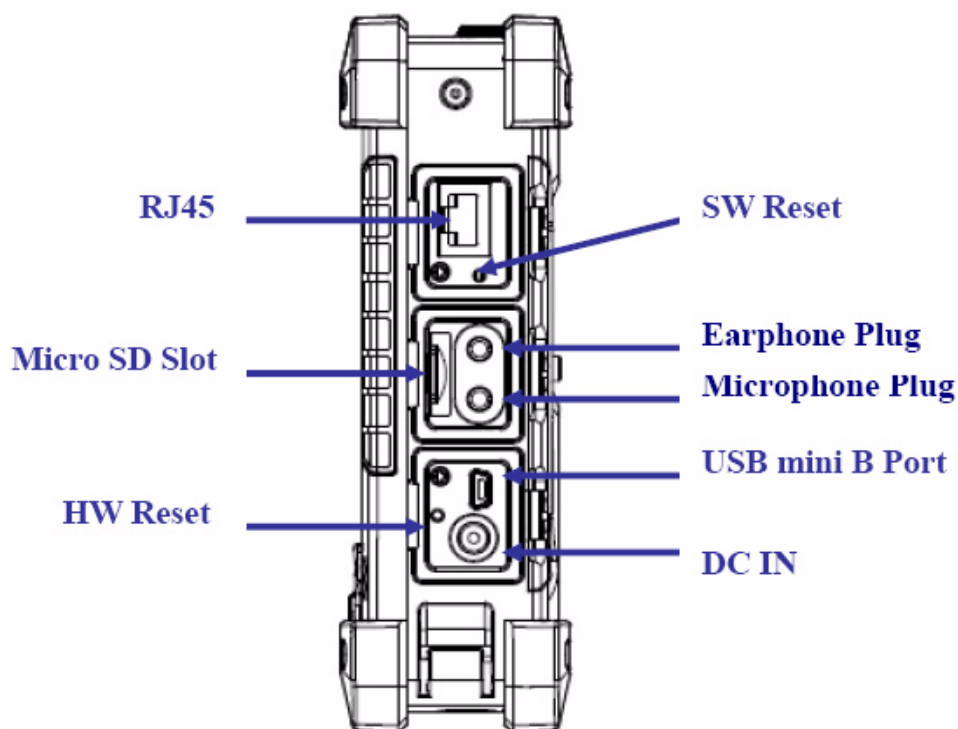
The following sections describe the main components and features of the PWS-8033M.

1.2.1 Front View



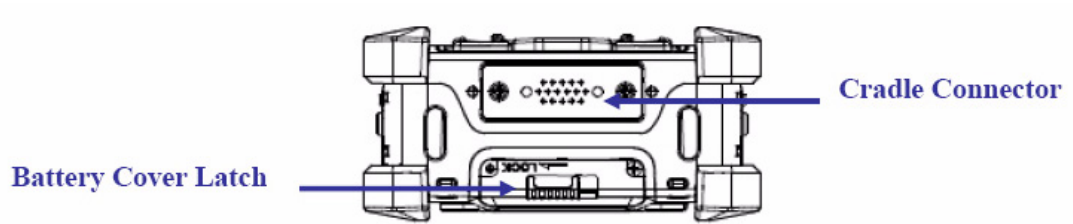
Item	Description
LCD touch screen	Displays the applications and data stored the PWS-8033M. It is a touch-sensitive screen and can be operated using the stylus or finger.
Navigation Keys	Press these keys to navigate in the PWS-8033M interface.
Function Keys	Programmable keypad interface for controlling the PWS-8033M.
Power button	If the device is off, press this button to turn it on. When the unit is on, press this button for 3 seconds to turn the PWS-8033M off.
Power LED	Indicates the battery charging power status. Green -Battery is fully charged or the device is running on battery power. When LED flashes, the battery charge is at 13%. The battery should be recharged immediately.

1.2.2 Right View



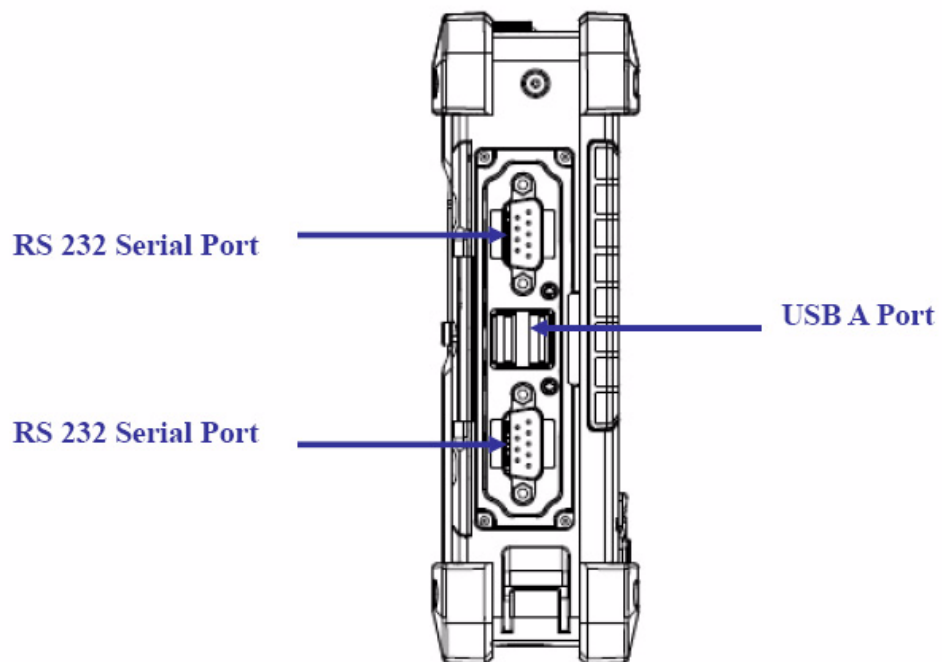
Item	Description
RJ45 Port	Connects to the LAN.
SW Reset Switch	Press the end of the stylus into the button to reset the PWS-8033M. A reset allows your device to get a fresh start, similar to warm rebooting a computer.
Earphone Plug	Connects to audio line-out devices (earphones or headphones) for use in noisy environments.
Microphone Plug	Enables the recording of voice using an external microphone
USB mini type B port	USB mini type B port (client).
Micro SD Slot	Accommodates Micro Secure Digital memory cards.
HW Reset Switch	Press the end of the stylus into the button to reset PWS-8033M.
DC IN Jack	Connect the AC adapter to this jack to supply power to charge the PWS-8033M battery.

1.2.3 Bottom View



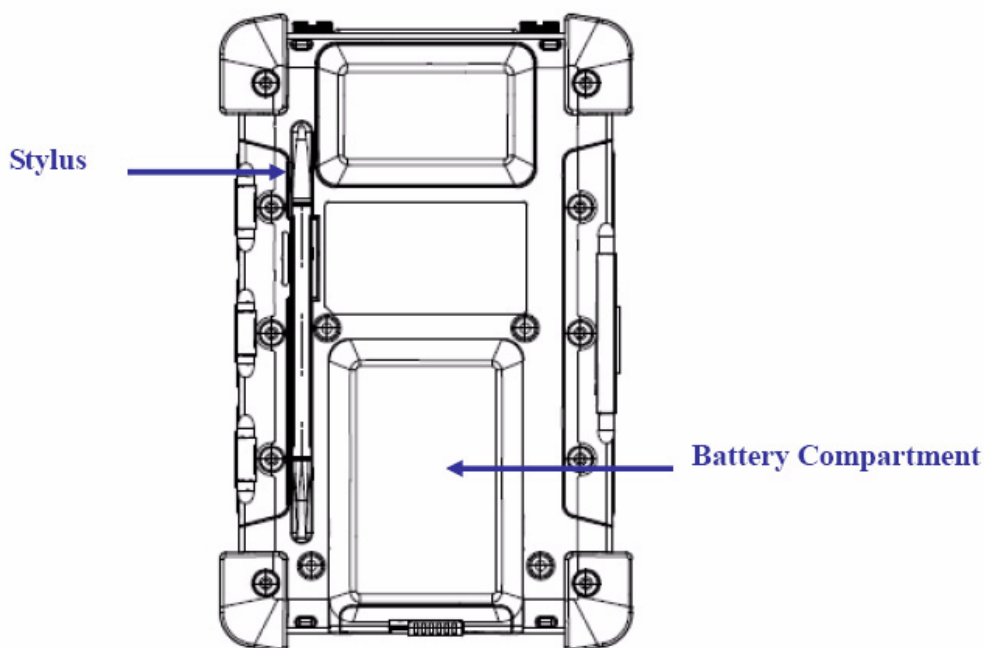
Item	Description
Cradle connector	Connects the PWS-8033M to cradle, enabling battery charging also connects RS232, USB A and USB mini B).
Battery Cover Latch	Unlock the latch to open the battery compartment cover, to place or remove battery.

1.2.4 Left View



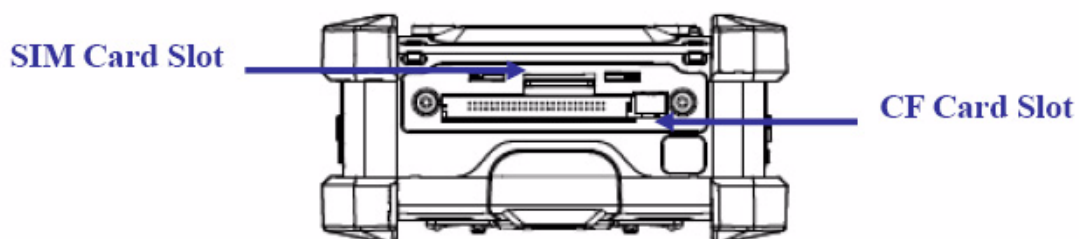
Item	Description
RS 232 Serial Port	Connects using a mini 9 way D type connector for this port for serial communications.
USB type A port	Connects to USB type A port (host) to this port.

1.2.5 Back View



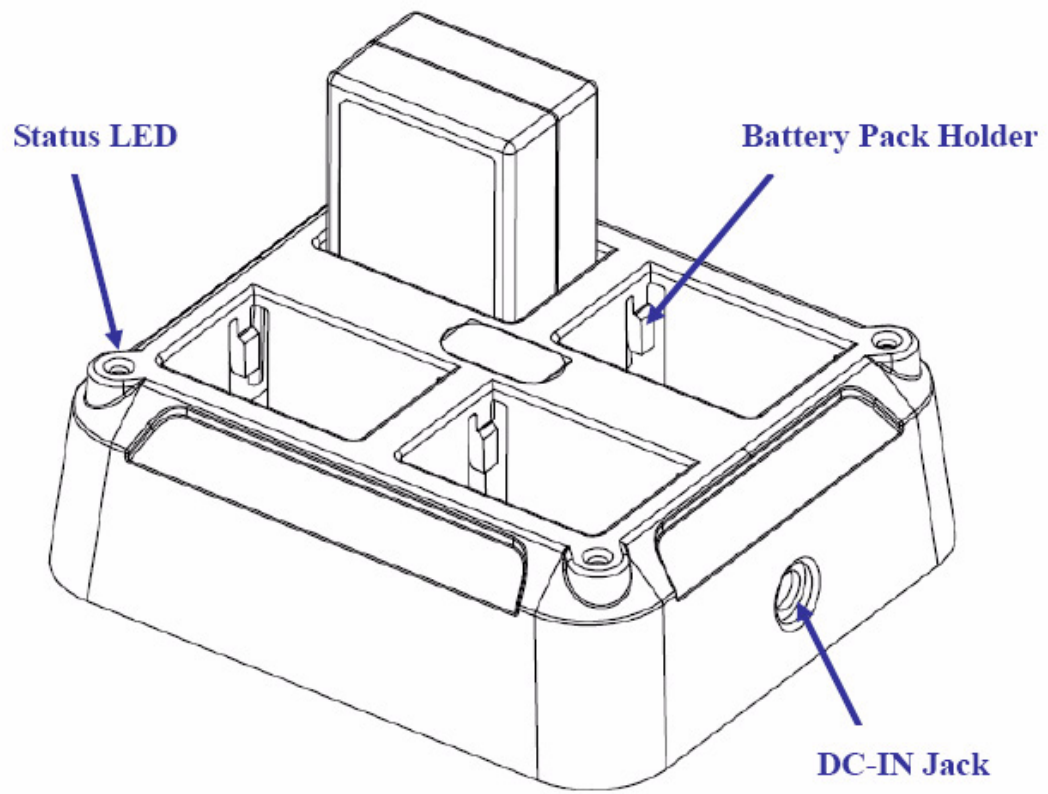
Item	Description
Stylus	Enables you to interact with the operating system. Remove the stylus from the holder and hold and use it the same way you would a pen or pencil. For use with the touch screen..
Battery Compartment	Houses the removable and rechargeable battery pack.

1.2.6 Top View



Item	Description
CF Card Slot	Additional functionality can be provided by using Compact Flash cards.
SIM Card Slot	Additional functionality can be provided by using SIM cards. Only with WAN module included.

1.3 4-In-1 Battery Charger (Optional)

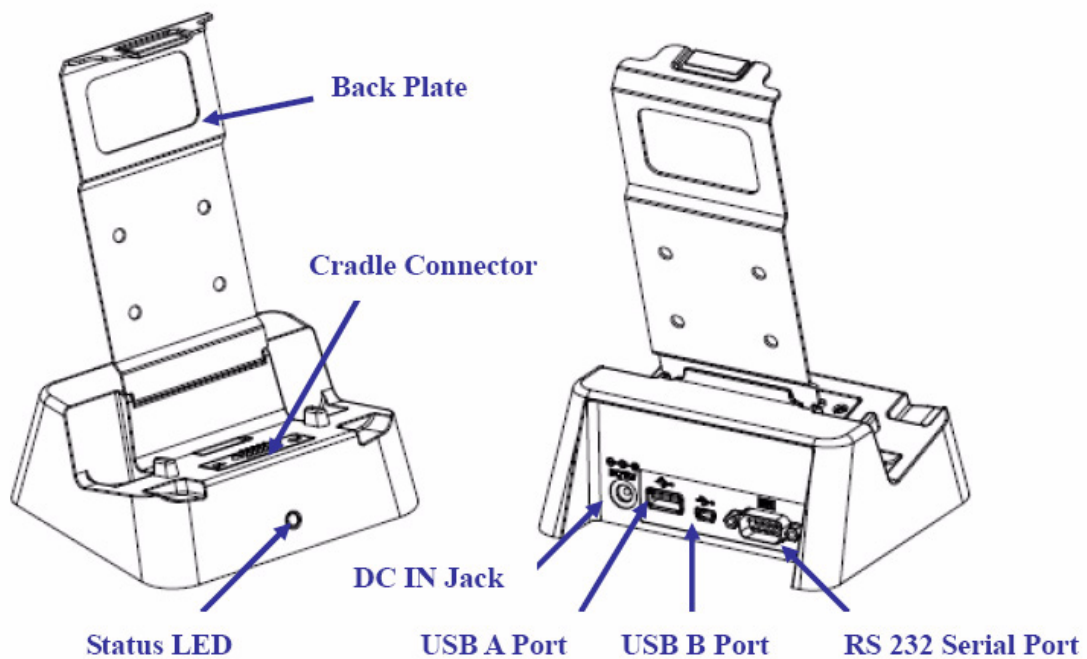


Item	Description
Battery Pack Holder	Lock Battery pack into position for Battery charging.
DC IN Jack	Connect the AC adaptor to this jack to supply power to the charger and charge the PWS-8033M Battery. *
Status LED	Indicates that power and the PWS-8033M battery is charging. RED light -Battery is charging. No Light – No battery fitted. RED light Flash once – Power Adaptor connected, and ready for charging battery.

Warning! Both Battery charger adaptor and PWS-8033M power adaptor are the same, but they can NOT be interchanged with other adaptor.



1.4 Cradle (Optional)



Item	Description
Back Plate	Supports the PWS-8033M into charging position
RS 232 Serial Port	Connects a serial cable.
USB type A port (host)	Connects a USB type A (host) cable.
Cradle connector	Connects the PWS-8033M to the cradle, Provides connections for RS232, USB type A and mini USB type B.
USB mini type B port (client)	Connects a USB mini type B (client) cable.
DC IN Jack	Connects the AC adapter to provide power for the cradle*
Status LED	Indicates that power and the PWS-8033M is charged. Green light –PWS-8033M is charging, and connected. No Light –No PWS-8033M fitted for charging.

Chapter 2

Installation

2.1 Getting Started

This chapter explains how to install and charge the battery, how to check the battery status, how to turn on the PWS-8033M, and how to calibrate the screen.

2.1.1 Installing the Battery

Warning! *There is a risk of fire and burns if the battery pack is handled improperly. DO NOT disassemble, crush, puncture, short external contacts, or dispose the battery pack in fire or water. DO NOT attempt to open or service the battery pack.*



Dispose of used batteries according to local recycling guidelines in your area. A backup battery cell is embedded into your device to prevent data loss in instances when the removable battery pack is removed or completely discharged. This backup battery cell will only support the system for a maximum of 3 minutes.

Status	Charging	Ready
Power OFF	Amber flashing light	Amber light
Power ON	Amber flashing with Green light	Amber light

1. Remove the battery compartment cover.
2. Align the battery contacts with the contacts in the compartment and place the battery in the compartment.
3. Replace the battery compartment cover, and lock the battery latch.

2.1.2 Charging the Battery

Before using the PWS-8033M for the first time it will need charging for about 3 hours. The PWS-8033M can be charged using the power adaptor or the Cradle.

Note! *When the battery power is below 10%, the PWS-8033M will enter suspend mode.*

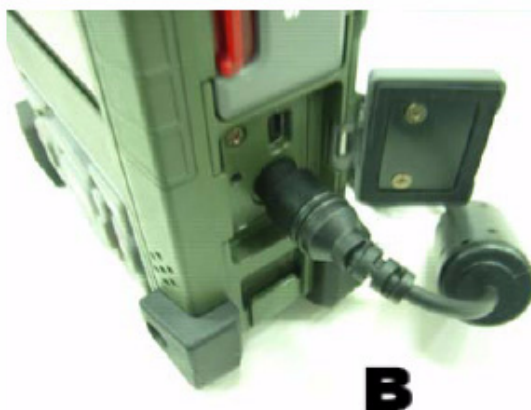


2.1.3 Charging the Battery with the Adapter Charger

1. Open the side door on the right bottom of the PWS-8033M.



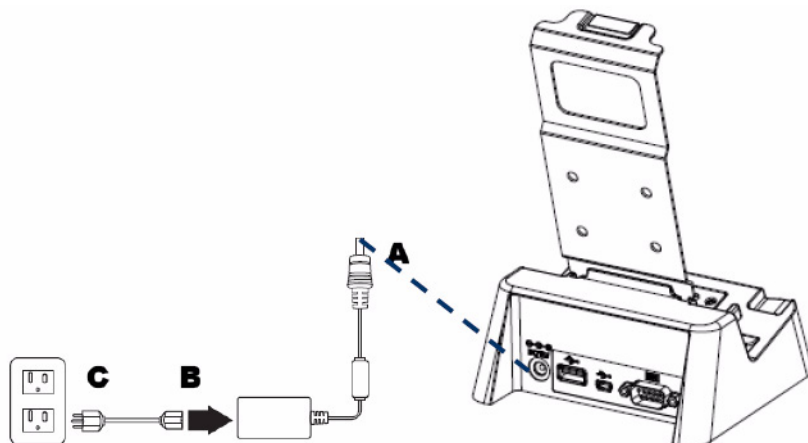
2. Plug the adapter charger (B) into the side door (A).



3. Plug the power cord into the AC adapter.
4. Plug the AC adapter into an electrical outlet.

2.1.4 Charging the Battery with the Cradle

1. Slide the PWS-8033M into the cradle until it clicks into place.
2. Plug the AC adapter cable into the power connector on the cradle (A).
3. Plug the power cable connector into the AC adapter (B), Plug the AC adapter into an electrical outlet (C).



2.2 Powering up for the First Time

After you have charged the PWS-8033M for about 3 hours the device is ready to be used. You can now start up the PWS-8033M when you can calibrate the touch screen, practice with the stylus and set the date, time and zone. Turn on your device by pressing the power button on the front panel.

2.3 Calibrating the Touchscreen

The calibration screen automatically appears when the unit is powered on for the first time or after the system is reset.

1. Tap the center cross hair firmly and accurately with the stylus. The cross hair moves to the next location.
2. Follow the cross hair and continue tapping until the screen has been calibrated.
3. After calibration is finished, press the Enter key to save the settings or press Esc to revert to the previous settings.

Note! To recalibrate the screen at any time, tap Start Settings Control Panel. Then double-tap Stylus. Tap the Calibration tab, and tap Recalibrate.



2.4 Setting the Time and Date

1. Tap Start Settings Control Panel.
2. Double-tap Date/Time.
3. Tap the arrows next to the month to select the correct month.
4. Select a field in the time box and tap the arrows next to the time to change the value of the field.
5. Tap the drop-down arrow next to Time Zone to select the correct time zone for your area.
6. Check the box next to Automatically adjust... to have the OS automatically update the time for daylight saving.
7. Tag Apply to save the settings.

2.5 Adjusting the Screen Brightness

1. Tap Start Settings Control Panel.
2. Double-tap OEMs Utility.
3. Click the Display Manager tab.
4. Under Backlight Control, click the Dark arrow to make the screen darker, or click the Bright arrow to make the screen brighter.
5. Click OK to save and exit the utility.


Chapter 3

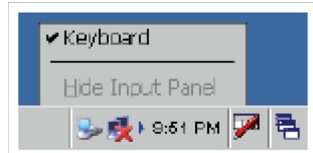
Using the Hardware

3.1 Keypads and Function Buttons

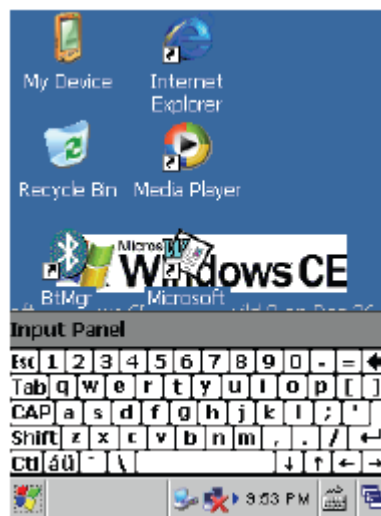
The keypad enables you to both enter information and interact with the PWS-8033M operating system.

3.1.1 Entering Characters with the Keypad

The operating system has an onscreen keyboard that enables you to enter alphanumeric characters with the stylus. Press the input panel icon  in the system tray to view the input panel menu. Tap **Keyboard** to view the onscreen keyboard.



Tap **Hide Input Panel** to close the keyboard.



The keyboard emulates a standard computer keyboard. Tap the onscreen keyboard to enter, edit, and delete text.

3.2 Using the Stylus

CAUTION! Never use anything other than the PWS-8033M stylus on the screen. Using another object as a stylus could cause permanent damage. You can use your finger to interact with the screen as well.

1. Remove the stylus from its holder.
2. Hold the stylus as you would a pencil.
3. To make a selection from a menu, lightly tap the tip of the stylus on that item.

Adjusting the Double-Tap Rate

Set the stylus double-tap rate as follows.

1. Tap **Start Settings Control Panel**.
2. Double-tap **Stylus**.
3. Tap the Double-Tap tab.
4. Double-tap on the checkerboard graphic to set your double tap rate.

3.3 Inserting a CF Card

The PWS-8033M accommodates a CF card. You can to the functionality of the PWS-8033M by installing a CF memory card

Perform the following steps to insert a CF card into the PWS-8033M:

1. Unscrew the two hand screws securing the CF cover.
2. Insert the CF card into the slot as shown, until the contacts are properly seated in the CF connector.
3. Replace the cover.

3.4 Removing a CF Card

1. Press the black CF button next to the slot. The button pops out.
2. Press the button again to push the CF card out.

3.5 Inserting an Micro SD Memory Card

The PWS-8033M has a SD card slot compatible with a wide range of Micro SD cards, which are primarily used to back up or transfer files and data. The slot also supports HCSD cards. To insert a Micro SD card into the Micro SD slot.

1. Open the right centre door.



2. Insert the Micro SD card with the notched corner as oriented as shown below



3. Press the card into the slot. The card is secure when it is flush with the slot.
4. Close and lock the door.

3.6 Removing a Storage Card

1. Open the right centre door.
2. Press the card in and release. The card pops out.
3. Remove the card from the slot.
4. Close and lock the door.

3.7 GPRS SIM Card Set Up

1. Remove the two hand screws on the top of the PWS-8033M.
2. Insert the SIM Card into the SIM Card slot as shown.
3. Push the card into the slot. The card is secure when it is flush with the slot.

Note! The battery must be removed before SIM card can be fitted.



3.8 Connecting Devices to the PWS-8033M

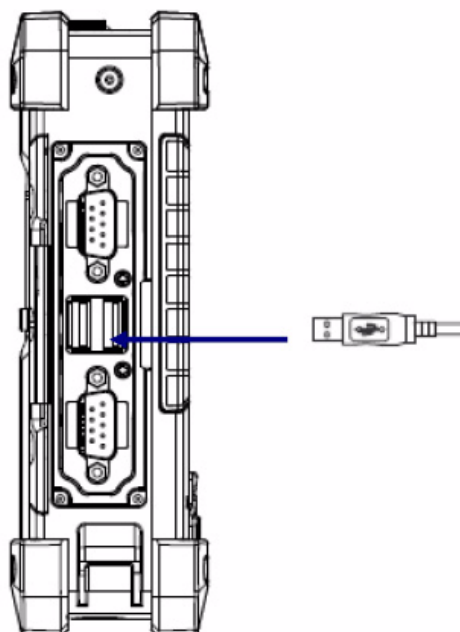
This section describes how to connect devices to the PWS-8033M. Connection can be made directly to the PWS-8033M or using the cradle.

3.8.1 Connecting USB

The PWS-8033M can accommodate both USB Type A and USB mini Type B.

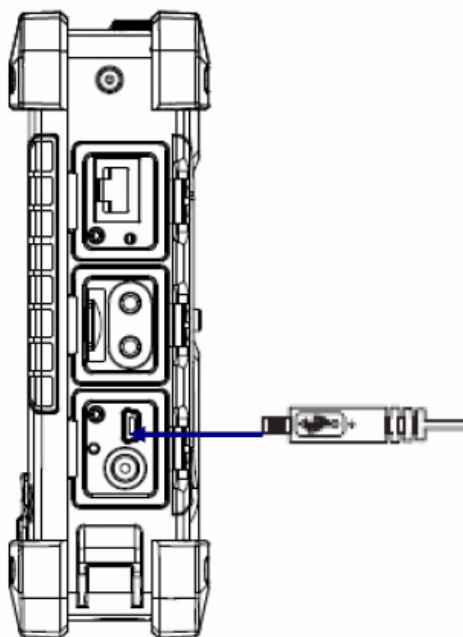
Connecting a USB Type A

The illustration below shows how to connect a USB type A device to the PWS-8033M. The connector can only go in one way. If it does not go in smoothly, check the orientation and try again.



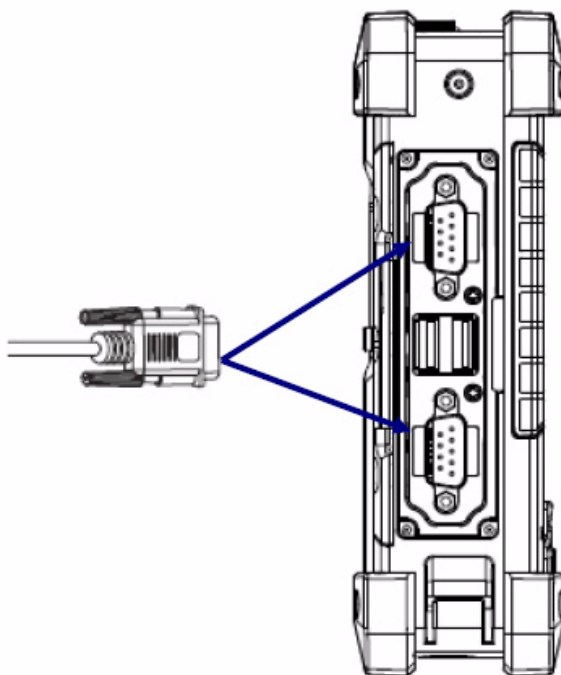
Connecting a MINI USB Type B

The illustration below shows how to connect a mini USB type B cable to the PWS-8033M. The connector is keyed to only go in one way. If it does not go in smoothly, check the orientation and try again.



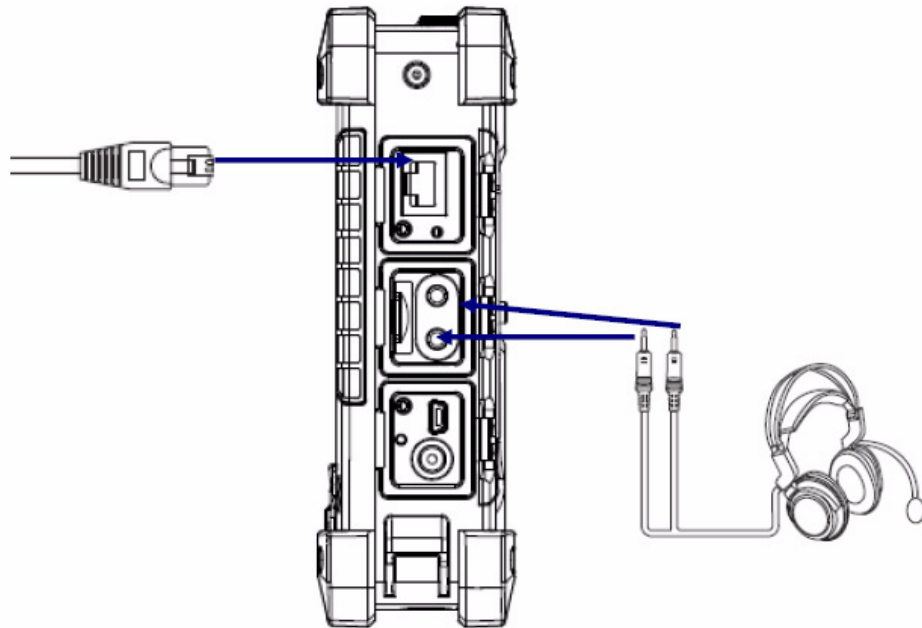
3.8.2 Connecting a Serial Device

Connect a serial device to the PWS-8033M to perform serial communications. Please see below illustration



3.8.3 Connection to a LAN

The PWS-8033M is connected using a RJ-45 connector. See below:



3.8.4 Connecting Headphones and a Microphone

The PWS-8033M utilizes an external microphone and speaker. A headset and microphone can be used in noisy environments. See the illustration above.

3.8.5 Connecting to the Cradle (Optional)

The cradle allows for charging the batteries as well as connecting USB and serial devices

Connecting USB

There is one USB Type A connector on the back which supports both USB keyboard and mouse. In addition there is one Mini Type B USB port next to the Type A USB connector.

Connecting a Serial Cable

A serial cable can be connected thePWS-8033M cradle.

Chapter 4

Getting Connected

4.1 Installing Microsoft ActiveSync

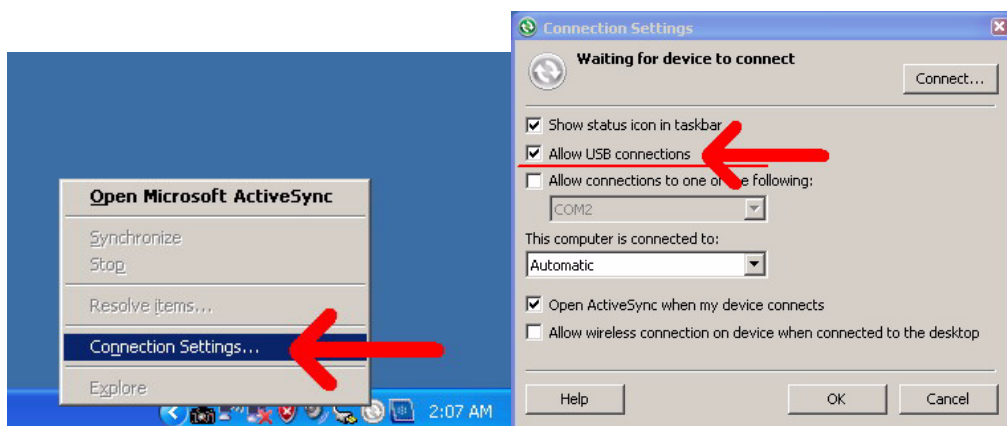
In order to exchange data between your computer and the PWS-8033M and install extra applications or utilities to the PWS-8033M, Microsoft ActiveSync must be installed on your computer. Connect the PWS-8033M to a PC using a USB type B cable. Download the latest version of Microsoft ActiveSync from the Microsoft web-site.

Note! *If you have a previous version of the Microsoft ActiveSync installed in your computer, uninstall it first before installing the latest version of Microsoft ActiveSync.*



4.1.1 Connecting to Your Computer

1. After ActiveSync has been installed, connect the USB B cable to the USB port on your PWS-8033M.



2. Plug the other end of the USB cable into a USB port on your computer.

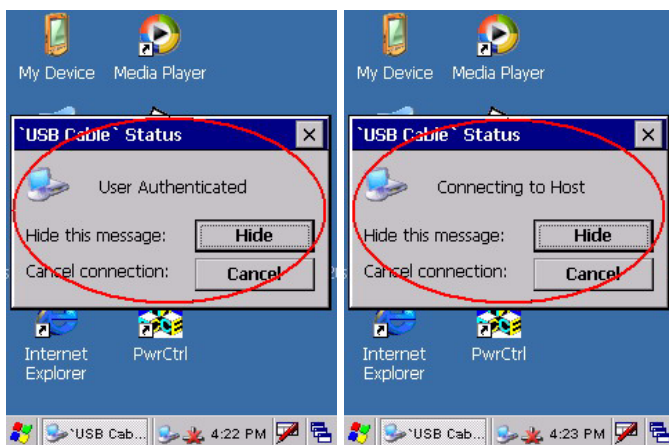


3. Turn the device on.
4. ActiveSync starts automatically and configure the USB port to work with the PWS-8033M. The New Partnership setup wizard will automatically start.

Note! *If ActiveSync doesn't start automatically, click Start Programs Microsoft ActiveSync. If a message appears indicating that it is unable to detect a connection, click the Cancel button and manually configure the communication settings.*



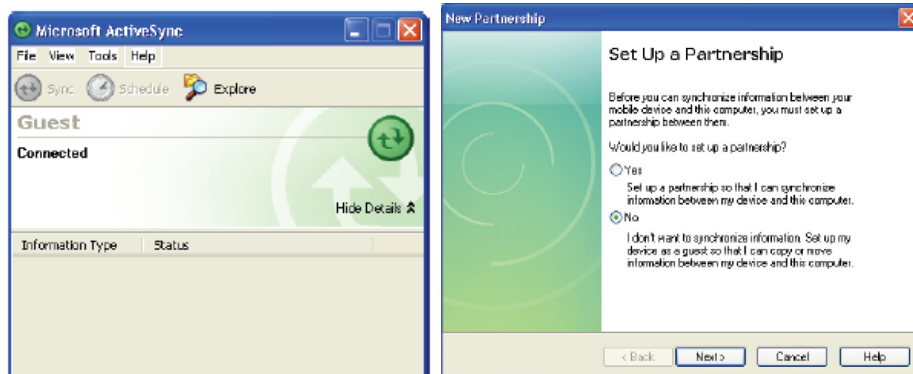
5. Follow the onscreen instructions.



6. When the configuration process is complete, the ActiveSync window appears.



7. Synchronization will be initialized and will take place if you've chosen to synchronize periodically or upon connection.
8. ActiveSync detects the PWS-8033M and establishes a connection.

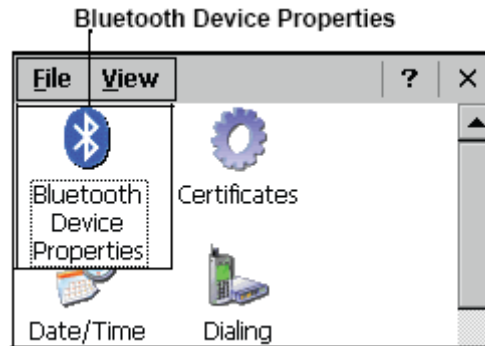


9. Click **No**, and then click **Next**.

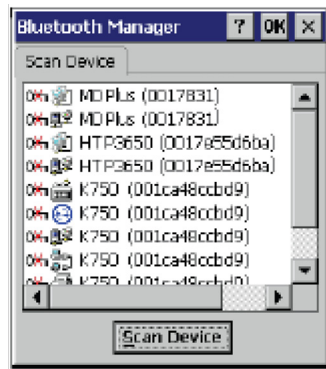
4.2 Connecting with Bluetooth

Your device is equipped with Bluetooth technology that you can use to synchronize information with a computer equipped with a Bluetooth adapter or access point. Bluetooth wireless technology allows you to communicate with the computer whenever it is within range. Follow these instructions to set up a Bluetooth connection.

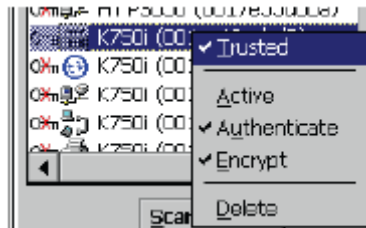
1. **Start>Settings>Control Panel** and double-tap **Bluetooth Device Properties**



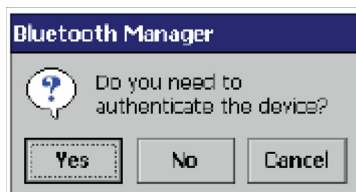
2. Tap **Scan Device**. Bluetooth Manager scans for local Bluetooth devices and displays a list of all Bluetooth enabled devices within range.



3. Double tap a device in the list to display a context menu.



4. Tap **Trusted** to add the device to the trusted Bluetooth devices list. You are prompted to authenticate the device. If you want to authenticate the device now, go to step 5. Otherwise, go to step 7.



5. Tap **Yes** to authenticate the device. You are prompted for the device's pin code. Enabling trusted devices to the Bluetooth manager's list. You can mark the device as trusted without authenticating the device by tapping No when prompted to authenticate the device.



6. Enter the pin code and tap **OK** to authenticate the device. Tap **No** to cancel authentication.

Note! *If you enter the wrong pin code, an authentication fail message appears. The red X disappears on the entry's key icon, and the context menu's additional options become available.*



The additional options are described as follows:

Trusted: tap to add or remove the device from the trusted device list. When checked, the red X on the key next to the device is removed.



Active: tap to make the device active or inactive.

Authenticate: tap to authenticate the device and add the device to the trusted devices list.

Encrypt: tap to enable or disable encryption of data transferred between the PWS-8033M and a Bluetooth device.

Delete: Deletes the device from the Bluetooth Manager list

4.3 Connecting to a WLAN (Wi-Fi)

Through a WiFi (wireless) connection you can add a new network, connect to an existing network, change the advanced wireless settings and view wireless networking log information. To establish a WiFi connection, follow the steps below:

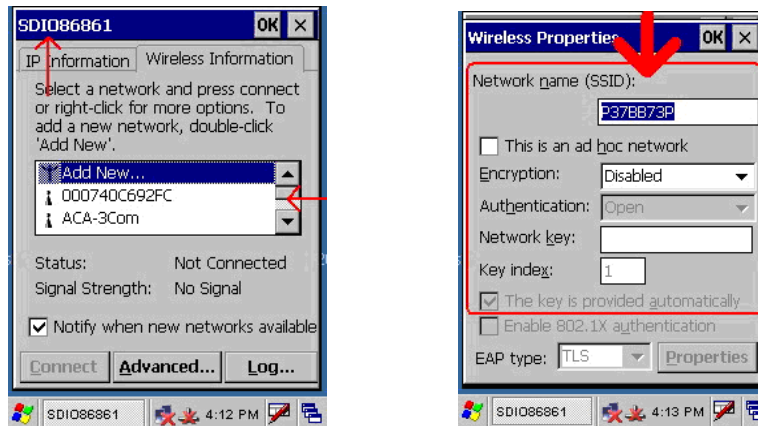
1. Start from "PwrCtrl", and chose WLAN "ON". Then, Click on the WIFI icon.



2. Select the **Wireless Information** tab to display the available options

4.3.1 Add a New Network

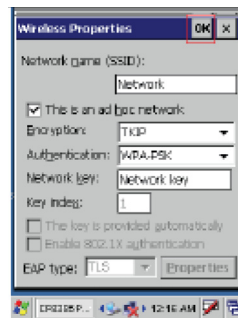
1. To add a new network, double-click **Add New**.



2. When the following screen displays, input the required parameters as explained in the following table:

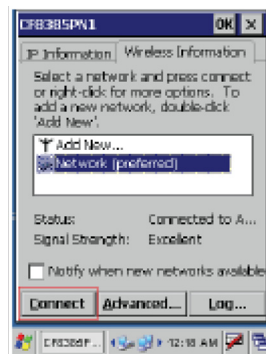
Parameter	Description
Network name (SSID)	Input the wireless network name.
This is an ad hoc network	Tick the box if required.
Encryption	Select from the drop-down list.
Authentication	Select from the drop-down list.
Network key	Input the network key (if required).
Key index	Input the key index (if required).
EAP type	Select the EAP type.

Click **OK** to connect.



4.3.2 Connecting to an Existing Network

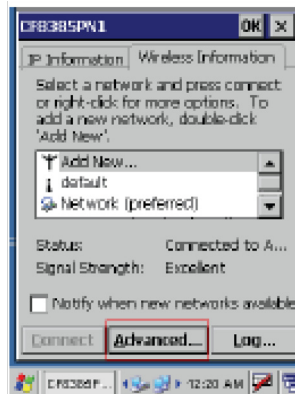
1. Select a network from the list and press **Connect** or right-click for more options.



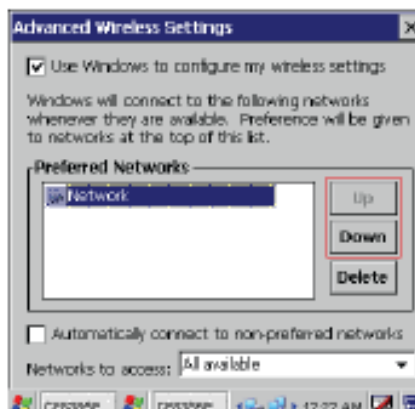
2. Click **OK** to connect.

4.3.3 Changing the Advanced Settings

1. Tap the **Advanced** button to display the advanced wireless settings (the preferred networks will be listed and preference is given to networks at the top of the list).



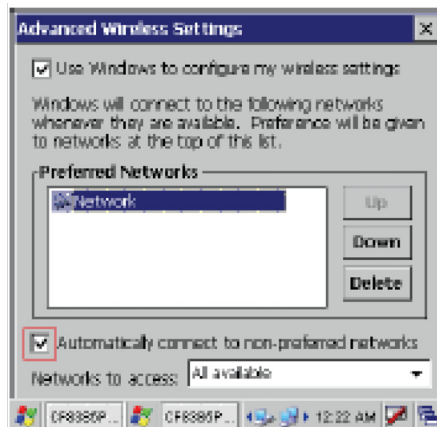
2. To move a network up or down in priority, tap the **Up** or **Down** buttons.



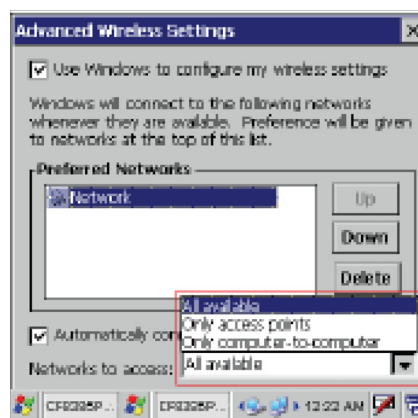
3. To delete a network from the list, tap the **Delete** button.



- To automatically connect to non-preferred networks, click the box.

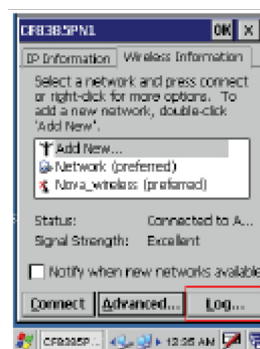


- To select which networks to access, tap the drop down menu and choose the required option.



4.3.4 View Wireless Networking Log Information

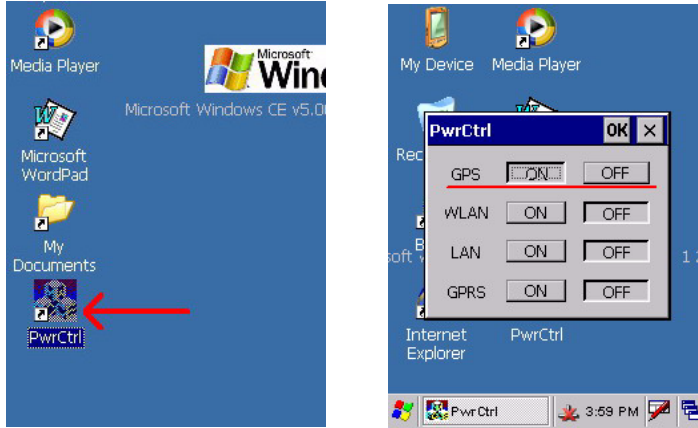
Tap the **Log** button to display the log information.



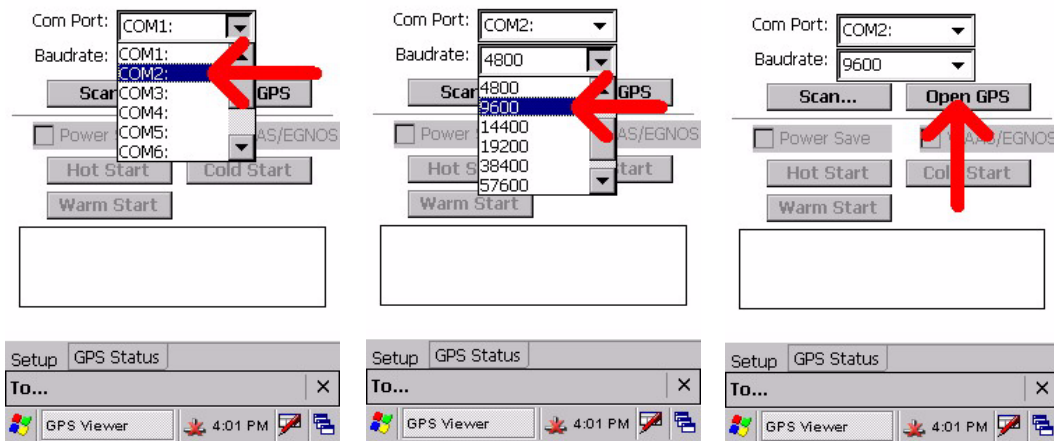
4.4 Connecting GPS

GPS functions come optional with PWS-8033M. Different countries have different GPS positioning programs and users can download from a variety GPS positioning programs to install into this unit. The following illustration demonstrates how the GPS viewer operates.

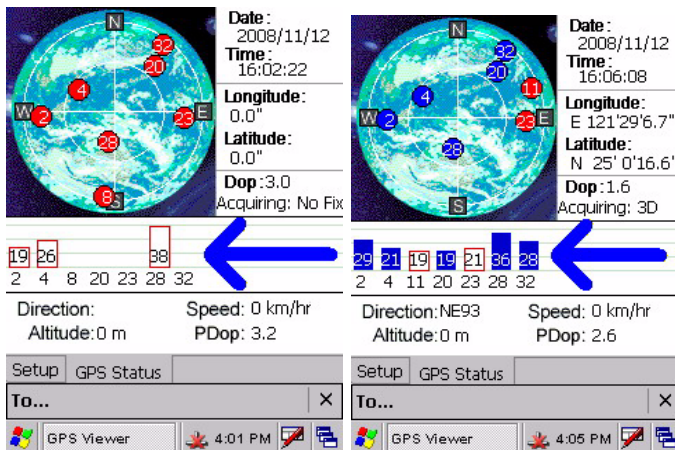
1. Start from "PwrCtrl", and chose GPS "ON"



2. Run the GPS Viewer program (download available from the Internet).
3. Click **COM2**. and Baudrate **9600**. Then, **OPEN GPS** to start the "GPS".



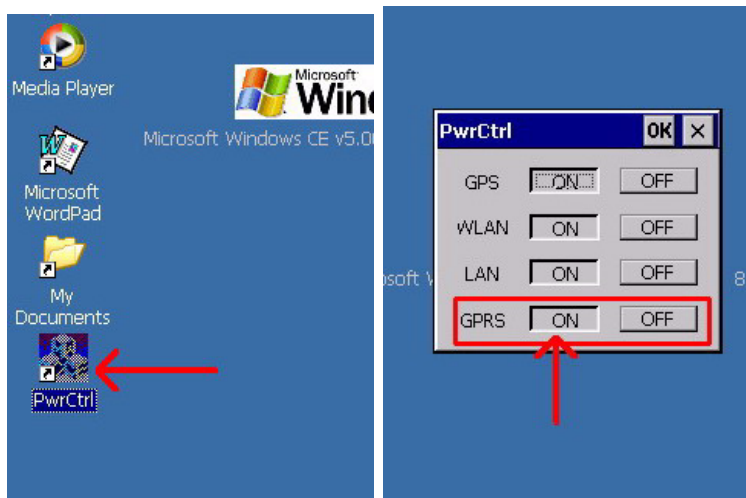
4. When GPS is active, click **GPS status** to display the satellite status.



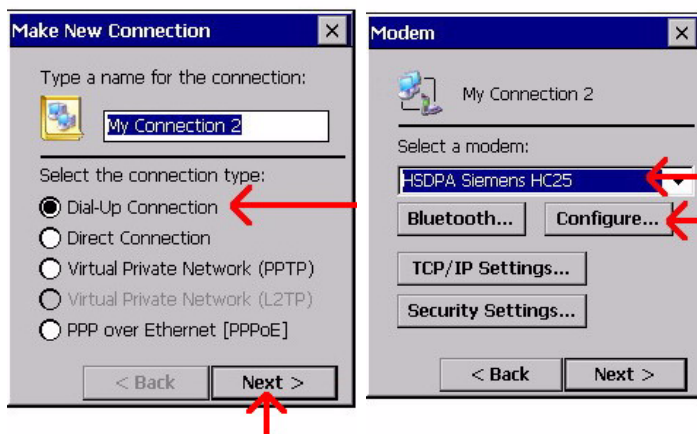
5. Allow approximately 60 seconds for GPS longitude and latitude display.

4.5 Connecting GPRS

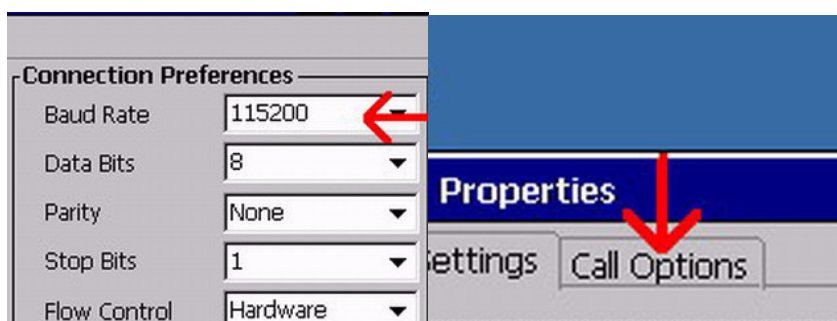
1. Start from "PwrCtrl", and chose GPRS "ON"



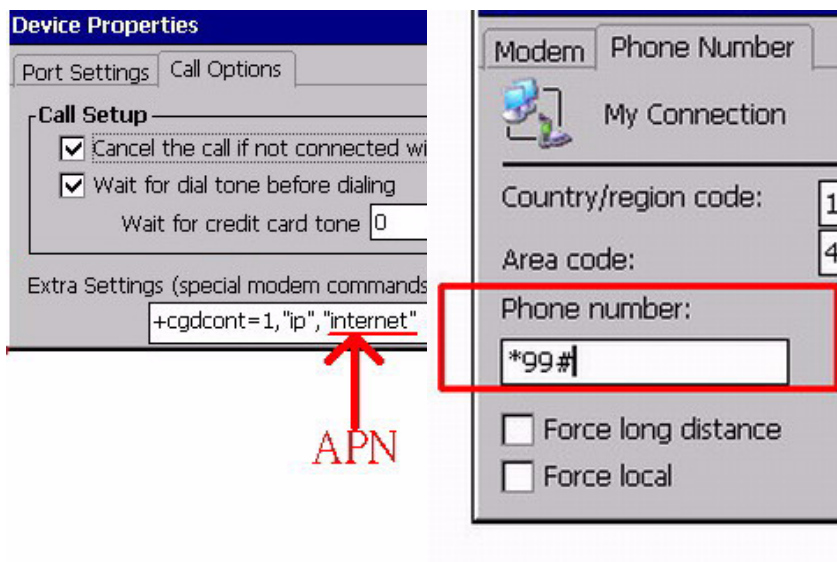
2. Chose Start>Settings>Control Panel>Network and Dial-up connections
3. Tap Make New Connection>Dial-Up Connection>HSDPA Siemens HC25>Configure



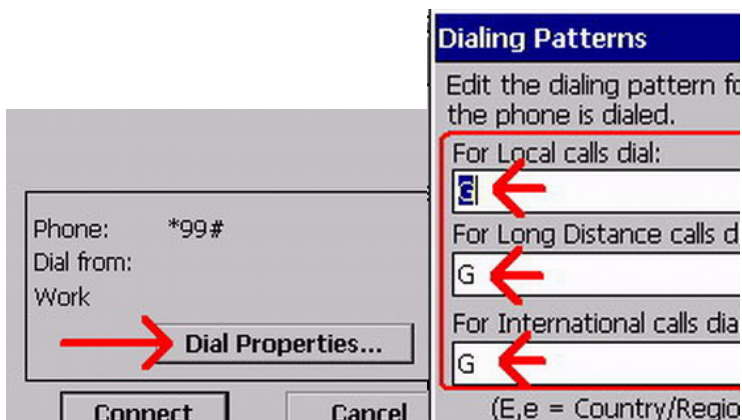
4. Set>Baud Rate>115200, then chose>Call Options>to set up APN



5. Input AT Command>+cgdcont=1,"ip","internet"> and>Phone Number>input. Then, CLICK OK.



6. Click **Control Panel** then **Network and Dial-upConnections**.
7. Click>Dial Properties>and>Dialing Patterns. Then, place "G" into each blank as follows:



8. Connection is successful when the **Status** screen displays **Connected**.



Chapter 5

Advanced Settings

5.1 Checking the Battery Status

This section describes how to view the power level for the main and backup battery and how to set power saving options. To check the main and backup battery status:

1. Open Power Properties. Tap **Start Settings Control Panel**. Then double-tap **Power**.



2. The battery menu item displays the status of the main and backup batteries.

Note! *It is necessary to charge the battery when the battery charge reaches below 13%. If the battery does not accept a charge, contact Technical Support.*



5.2 Optimizing Battery Life

You can extend the PWS-8033M battery life by doing either of the following:

- Change the automatic power settings
- Minimize the use of the backlight

5.2.1 Changing the Automatic Power Settings

To change the automatic power settings:

1. In the Power Properties screen tap the **Schemes** tab.
2. Tap the arrow next to the Power Scheme and select Battery Power.
3. Tap the arrows next to the following three power saving scenarios and select the desired time out for each item.

Switch state to User

Idle: PWS-8033M enters power saving mode when there is no user input after the selected timeout. The backlight brightness is reduced. The backlight resumes normal brightness when the LCD is Touched.

Switch state to System Idle: PWS-8033M enters power saving mode when there is no system activity after the selected timeout. The backlight is turned off. The backlight turns on when the LCD is touched.

Switch state to Suspend: PWS-8033M enters suspend mode when there is no user input or system activity after the selected timeout.

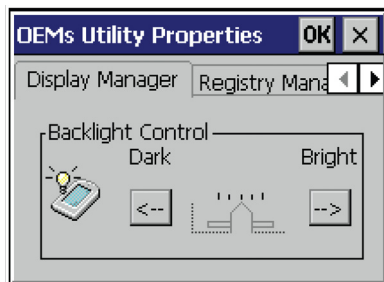
Time out values range from Never, and 4/5/10/30 minutes.

5.2.2 Adjusting Backlight Settings

The power consumption of the LCD backlight may be high, turn off the backlight function if it is not necessary. If a backlight is required, set “automatically turn off the backlight” function.

To change backlight settings:

1. Tap **Start Settings Control Panel**.
2. Tap **OEMs Utility**.
3. Select Display Manager, and tap the arrow next to Dark or drag the slider to the left to reduce the screen brightness.



5.3 Performing a System Reset

You may need to perform a reset if the device freezes (i.e., device no longer responds to the buttons on the screen). A reset allows your device to get a fresh start, similar to rebooting a computer. This will restart your device and adjust memory allocation. All records and entries are retained after a reset. Unsaved data in open programs may in some cases be lost.

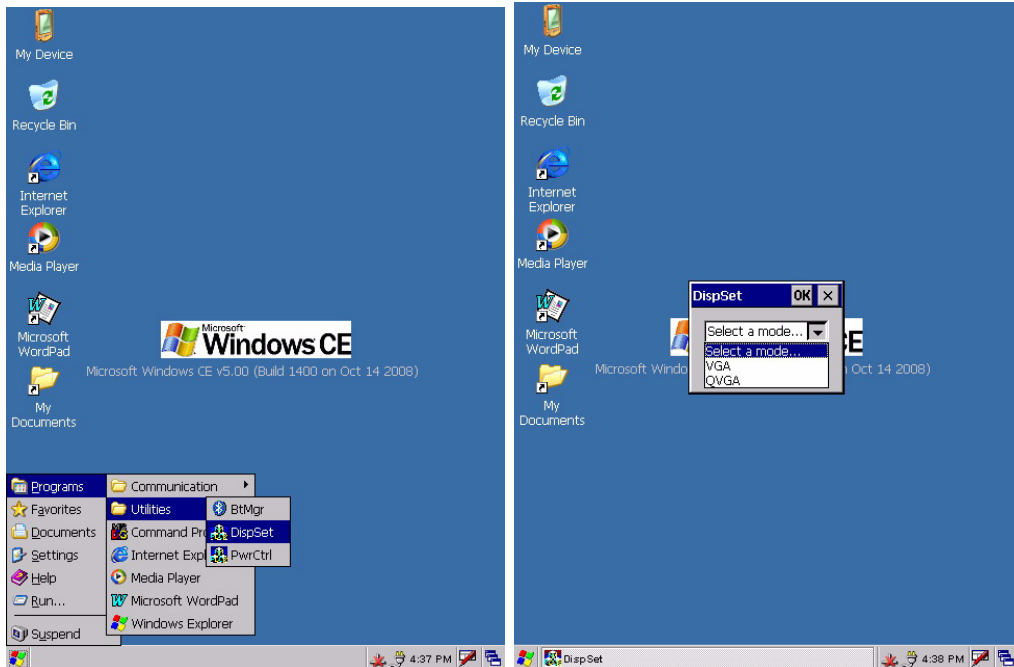
Performing a Software reset (re-boot)

1. Remove the stylus from its holder.
2. Lightly press the tip of the stylus to the reset button located on the PWS-8033M.

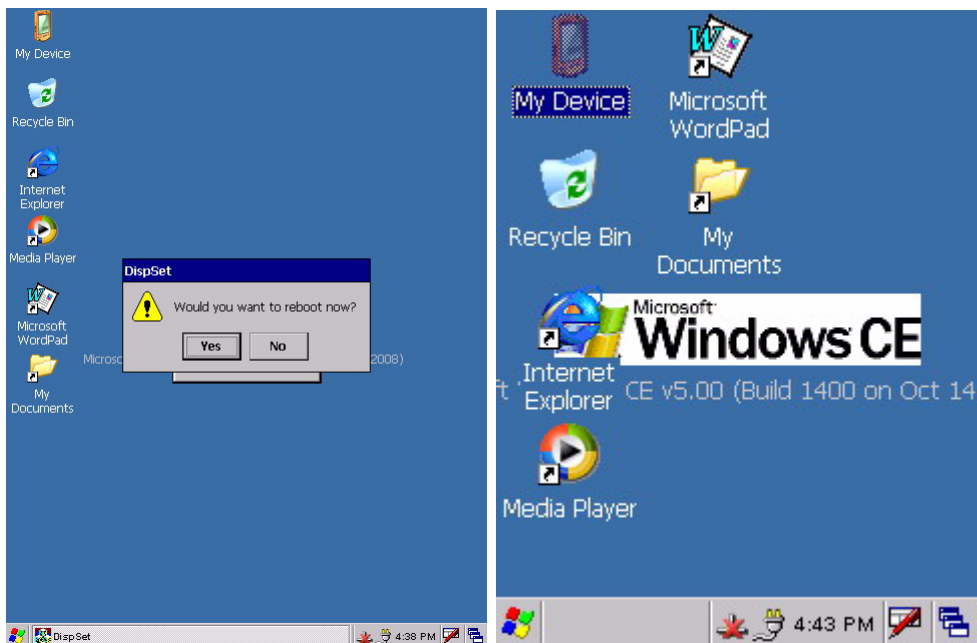
5.4 Changing the Screen Resolution

It may be necessary to change the screen resolution from VGA to QVGA, or from QVGA to VGA.

1. Start -> PROGRAM-> Utilizes-> DispSet



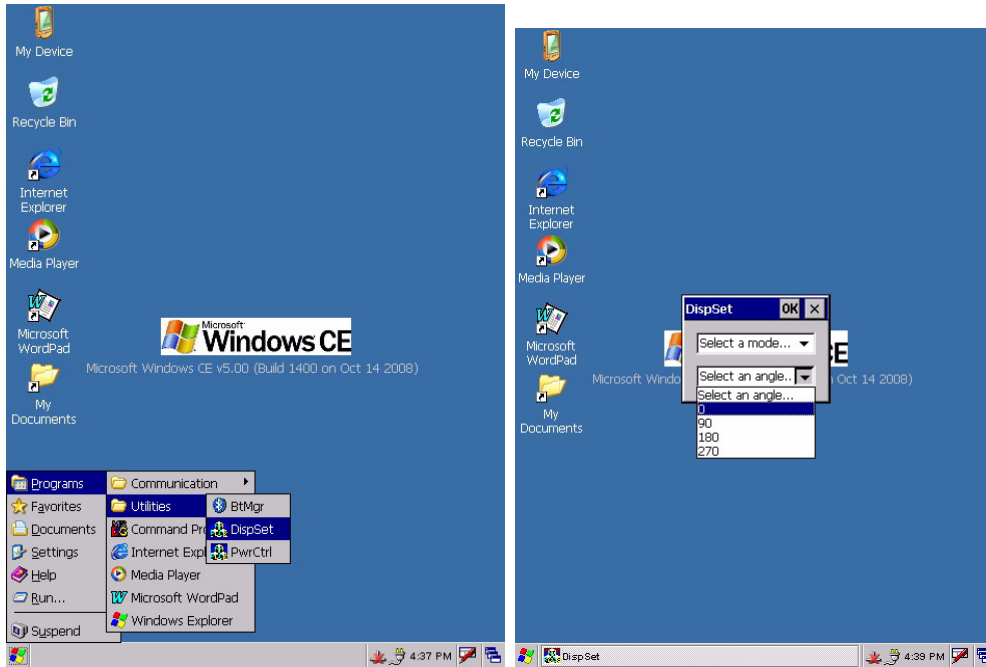
2. Wait for the PWS-8033M Re-start.



5.5 Rotate Screen

It may be necessary to rotate the screen display from standard through either 90, 180 or 270 degrees.

1. Start -> PROGRAM-> Utilizes-> DispSet



2. Select the angle of rotation.

